



Pharmacoeconomic, Epidemiology, and Pharmaceutical Policy and Outcomes Research (PEPPOR) Graduate Program

Front from left: 2010 Graduates Rupali Nail, PhD & Pallavi Jaiswal, MS; Back from left: PEPPOR faculty: Dr. Ludmila Bakhireva, Dr. Matthew Borrego, Dr. William Troutman, Dr. Nasreen Khan, Dr. Melanie Dodd; not shown: Dr. Dennis Raisch, 2010 graduates Heather Campbell, MS & Vishal Bali, MS

Curriculum - MS Degree with an Emphasis in Clinical Trials

CORE COURSES

Public Health 538. Biostatistical Methods I for Public Health and Medical Sciences (3) [may substitute Ed Pys 603, 604 or 606]

Covers basic statistical methods, including statistical summaries and inference. Methods of summarizing data include graphical displays and numerical summaries. Statistical inference includes hypothesis testing and confidence intervals. Methods for continuous and categorical data are studied.

Public Health 539. Biostatistical Methods II for Public Health and Medical Sciences (3) [may substitute Ed Pys 603, 604 or 606]

Covers basic models used in the statistical analysis of studies in the medical sciences and public health field, with an emphasis on epidemiology. Linear regression, analysis of variance, logistic regression, and survival models are studied.

Public Health 502. [Biomed 565.] Epidemiologic Methods I. (3)

Provides an overview of the methods of epidemiologic research. Designed to provide students with the capability of understanding epidemiologic measures of disease occurrence, interpreting the findings of epidemiologic studies, and integrating the results of epidemiologic research into public health practice.

Public Health 520. (Biomed 566.) Epidemiologic Methods II (3)

Provides a good understanding of the principles and methods involved in the design, conduct, analysis and interpretation of epidemiologic research.

Pharmacy 548. Ethics Clinical Trials / Informed Consent. (2)

The study of the history, ethical versus scientific methodological conflicts, and other conflicts that are generated by the conduct of randomized controlled clinical trials using human beings. The course also reviews the history and ethics of informed consent related to clinical trials.

Pharmacy 549. Regulatory Issues in Clinical Trials (2)

The study of federal regulations and guidelines that govern the planning and conduct of randomized controlled clinical trials in humans with drugs and devices. The Code of Federal Regulations and published literature are used.

Pharmacy 550. Pharmacoeconomics and Patient Outcomes Research In Medicine (3) [May substitute Pharmacy 545]

This course involves pharmacoeconomics and patient outcomes research. Pharmacoeconomics is the study of the economic results associated with pharmaceutical treatment or pharmaceutical care. Patient outcomes research involves all consequences of health care treatment, including clinical (healing, disease symptom remission), humanistic (satisfaction, health-related quality of life, societal utility), and economic (costs and savings). The course develops the theoretical and practical basis for these concepts and reviews the current literature in the area.

English 513. Scientific, Environmental and Medical Writing (3)

Theoretical and practical studies of writing in the sciences. Addresses writing for both popular and professional audiences.

Pharmacy 591. Seminar in Administrative Pharmacy. (1)

This course will give the students experience in organizing and presenting their thoughts and interpretations on a selected subject. The seminar will provide the student with an opportunity to develop writing and formal oral presentation skills. (students must register every semester)

ELECTIVES:**College of education: education psychology:****504. Statistical Software Applications for Education Research. [Mainframe Computer Software Use in Education.] (1-3) [3]**

Provides open lab, practicum-style opportunity to learn SPSS for Windows. First 5-weeks (1 unit) cover introduction, orientation and basics. Remainder covers other techniques (1-2 credits) by arrangement with instructor.

607 Structural Equation Modeling. (3)

Theory, application, interpretation of Structural Equation Modeling (SEM) techniques. Includes covariance structures, path diagrams, path analysis, model identification, estimation, and testing; confirmatory factor analysis, structural equation modeling and linear structural relations using latent variables.

Communication and Journalism:**574. Diffusion of Innovations. (3)**

The spread of new ideas, especially technological innovations, among the members of a system. Sources of innovation, importance of interpersonal networks in diffusion, and consequences of technological innovations.

Economics:**410. Topics in Health Economics. (3)**

Specialized topics in health economics including medical education, national health insurance, comparative systems, drug industry, and other contemporary issues. Emphasis on empirical applications in the study of health care issues.

501. Microeconomics I. (3)

Topics include producer and consumer theory, duality and welfare measures, competitive markets and monopoly, and decision making under uncertainty.

503. Economic Theory. (3)

Macro and micro theory with applications.

505. Applied Macroeconomics. (3)

Basic macroeconomic theory applied to current economic problems and policy issues.

506. Macroeconomics I. (3)

Closed and open economy macroeconomics. Aggregate demand and supply. Different models of business cycles. Micro foundations of macroeconomics.

508. Statistics and Introduction to Econometrics. (3)

Discrete and continuous probability distributions; expectations; joint, conditional marginal distributions; hypothesis testing; least squares estimators; violation of the least squares principle. Econometric software with applications.

509. Econometrics I. (3)

Theory and applications: ordinary and generalized least squares, hypothesis testing, dummy variable and distributed lag models; simultaneous equation and two stage least square models; forecasting. Emphasis on computer modeling.

510. Econometrics II. (3)

Simultaneous equation methods, nonlinear least squares, maximum likelihood method, qualitative dependent variable models, asymptotic properties and test statistics. Emphasis on computer modeling.

513. Microeconomics II. (3)

Competitive equilibrium and welfare economics. Topics from imperfect competition, decision making under uncertainty, introduction to game theory and distribution theory.

514. Macroeconomics II. (3)

Dynamic macroeconomics. Optimal economic policy. Theories of economic growth.

English:**513. Scientific, Environmental and Medical Writing (3)**

Theoretical and practical studies of writing in the sciences. Addresses writing for both popular and professional audiences.

Health Education:**506. Health Behavior. (3)**

This course explores multiple theories and models and their application in the development of health promotion programs to support change within individuals, families and communities.

574. Epidemiologic Principles for Health Educators. (3)

Designed to introduce students to statistics of diseases. Course surveys various research designs used in discovering and tracking diseases as they affect a human population.

Pharmacy:

597. Research Problems in Pharmaceutical Sciences. (1-5)

Research in pharmaceutical sciences.

599. Thesis. (1-6)

699. Dissertation, (1-9)

707. Administrative Pharmacy. (2)

Marketing and economic concepts of pharmacy practice, with a focus towards marketing of pharmaceutical services and products, pharmacy finance and economics in operation, pharmacoeconomics and decision-making.

Public Administration:

500. Public Management and Policy: (Contemporary Public Administration.) (3)

Principles and methods of public management and policy analysis: policy formulation and implementation, organizational relations, institutional development, administrative process and public sector ethics.

530. Health Services Administration. (3).

Administrative and organizational arrangements for health care; manpower needs and resources; problems of coordination, supervision, and delivery. Problems of preventive medicine with particular emphasis on environmental factors in health care.

Public Health:

501. [Biomed 561.] Principles of Public Health. (3)

Concepts of public health related to determinants of health; cultural, social, and political concepts of disease; disease prevention; health promotion, including individual behavior change and community based intervention; health policy.

502. [Biomed 565.] Epidemiologic Methods I. (3)

Provides an overview of the methods of epidemiologic research. Designed to provide students with the capability of understanding epidemiologic measures of disease occurrence, interpreting the findings of epidemiologic studies, and integrating the results of epidemiologic research into public health practice.

504. (Biomed 564.) Rural Health. (Rural Health Issues.)

Increases awareness of the complex factors affecting delivery of rural health services in New Mexico and the U.S and examines rural health support systems and rural health policy.

505. (Biomed 602.) Cultural, Social and Behavioral Theory and Health. (3)

In-depth investigation of behavioral, social and cultural theory's application to public health problem definition, prevention and intervention programs. Problem etiology and change strategy theories are investigated through application to specific public health problems among culturally distinct and marginalized groups in New Mexico. (Spring)

506. (Biomed 559.) Environmental / Occupational Health [Environmental and Occupational Health.] (3)

Applies the public health perspective to environmental and occupational disease. Students will learn to

apply the ecologic principles of agent, host and environment to diseases associated with exposures to the physical environment and chemical contaminants.

520. (Biomed 566.) Epidemiologic Methods II(3)

Provides a good understanding of the principles and methods involved In the design, conduct, analysis and interpretation of epidemiologic research.

525 [Biomed 578.) Epidemiology Surveillance. (2)

Covers disease surveillance in the history of public health; establishing a disease surveillance system; surveillance of infectious diseases, chronic/environmental diseases and behavioral risk factors; surveillance system evaluation and surveillance in emergency conditions. Emphasizes the central role that surveillance plays in development of public health policy.

527. [Biomed 608.] Chronic Disease Epidemiology. (2)

Familiarize student with methods of measuring morbidity and mortality from chronic disease, surveillance of behavioral risk factors for chronic disease, the scientific basis and cost-benefit analysis of screening programs, evaluation of prevention efforts and modeling disease patterns to predict future needs.

550. [Biomed 573.] The Political Economy of Health. (3)

Examines economic policies associated with health and wellbeing. Critically reviews economic theories and arguments and analyses indicators of economic growth and income distribution. Introduces theories and tools of policy analysis to explore public health issues on the political agenda.

551. [Biomed 611.] Health Care Strategic Management.(2)

Designed to provide an overview of human resources in areas such as supervision and teamwork, financial management to include budgeting and other management issues in health care organizations. Taught using case-study method.

554. [Biomed 603.] Health Care and Public Health Policy. (2)

Explores the private and public aspects of health care and public health. Emphasis is placed upon understanding the role of private initiatives like HMOs versus public initiatives like Medicare/Medicaid and Public Health in the U.S.

557. [Biomed 562.] International Health. (2)

This class applies economic, sociologic and anthropologic perspectives to health care problems across national and international groups. Strategies for analyzing needs in a cultural context are stressed.

564. [Biomed 574.] Health Communication. (23) (2)

Explores topics in patient-doctor and client-health care worker communication. From the public health standpoint, emphasizes communication about health promotion and disease prevention. Considers critically the communication processes in public health campaigns, especially how health policy Issues are portrayed in mass media.

School of Management:

502. Accounting and Management Information Systems I. (3)

Accounting concepts and procedures used in preparation of corporate financial statements: balance sheet, income statement, statement of cash flows. Measurement of reporting choices within Generally Accepted Accounting Principles. Foundations of corporate financial statement analysis.

503. Managerial Accounting. (3)

Primary emphasis on the role of accounting in the processes of management decision-making for planning and control. Topics include: relevant cost analysis, standard costing and analysis of variances; budgeting and responsibility accounting, planned capital expenditures.

504. Microeconomics for Managers. (3)

This is a course in microeconomics, which is the study of individual decision making in a world in which wants exceed the available resources.

505. Macroeconomics for Managers. (3)

This course is intended to provide the student with a theoretical and applied knowledge of macroeconomics, money and banking, and international economics.

506. Organizational Behavior and Diversity. (3)

Intensive examination of behavioral science research and theory as a basis for understanding, managing, and changing organizations. The course emphasizes effective management with diverse individuals.

508. Ethical, Social, Political and Legal Environment. [Ethical, Political and Social Environment of Business.] (3)

Influence of the external environment on management decisions and organizational welfare and how organizations affect the external environment and society. Examination of impacts of ethical, social, political, legal, and technological systems: and trends on management and how managers can deal with external issues.

509. Legal issues in Management. [Legal Environment of Management.] (3)

An introduction to the law with emphasis on its application to decision making in the private, not-for-profit, and public sectors.

510. Introduction to Information Processing. (3)

Management information system concepts: components of M.I.S., hardware, software, analysis, design, and implementation. Managerial issues of M.I.S. strategy and its effects on an organization's productivity, effectiveness, and efficiency. Spreadsheet, database, graphics, and macro applications.

513. Technological Forecasting and Assessment. (3)

Methods used in forecasting broad scientific and technological advances and assessing their applicability in the commercial world, with stress upon the broad macro-level economic issues such as competition, positioning of technology in the market and further research to apply the innovation to commercially viable products.

514. Technological Entrepreneurship. (3)

A clinical experience in the development of a new firm to exploit a significant technological innovation. Student teams work with inventors/entrepreneurs, faculty, and external resources to establish new companies.

522. Marketing Management. (3)

Analysis of the marketing effort and decision-making process in private, not-for-profit, and public institutions. Normative models for decision-making in different marketing situations. Analytical tools available for appraising, diagnosing, organizing, planning, and implementing market plans. Analysis of economic, social and political forces leading to change in the market place. Development of concepts useful in evaluating marketing situations, including those in the international setting.

526. Financial Management. (3)

The finance function and its relation to other functions of a firm. Topics include: analysis and budgeting of funds, management of current assets, financing short-term and intermediate-term needs, planning long-term debt policy and capital structure, capital costs and budgeting, dividend policy, valuation, mergers, and acquisition.

528. International Management. (3)

Theoretical foundations and conceptual frameworks for analyzing international management problems in diverse international institutions. Analysis of foreign environments within which multinational organizations operate; survey of various dimensions of international operations; awareness of differences in management practices around the world.

Statistics:**538. Biostatistical Method I for Public Health and Medical Sciences (3)**

Covers basic statistical methods, including statistical summaries and inference. Methods of summarizing data include graphical displays and numerical summaries. Statistical inference includes hypothesis testing and confidence intervals. Methods for continuous and categorical data are studied.

539. Biostatistical Method II for Public Health and Medical Sciences (3)

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